

Listing of Claims:

Claims 1-8 (Canceled).

9. (Currently Amended) A wander generator for generating a clock signal having wander which satisfies a desired time deviation characteristic, comprising:

center frequency information setting means for setting data
5 for determining a center frequency of the clock signal;

characteristic information setting means for setting
characteristic information of the desired time deviation
characteristic;

a fluctuating signal sequence generator unit for generating
10 a fluctuating signal sequence having a power spectrum density distribution characteristic of frequency fluctuations corresponding to the desired time deviation characteristic based on the characteristic information set by said characteristic information setting means;

15 an adder for adding the data set by said center frequency information setting means to the fluctuating signal sequence output from said fluctuating signal sequence generator unit;

a direct digital synthesizer for outputting a frequency signal corresponding to an output of said adder; and

20 a clock signal output circuit for waveform shaping an output
signal of said direct digital synthesizer to output a clock
signal;

 wherein said fluctuating signal sequence generator unit
comprises:

25 noise generating means for generating a white noise signal
based on a pseudo random signal;

 impulse response processing means for calculating an impulse
response of a transfer function for approximating a power
spectrum of the white noise signal output from said noise
30 generating means to the power spectrum density distribution
characteristic of the frequency fluctuations based on the
characteristic information set by said characteristic information
setting means; and

 convolution processing means for convoluting a result of the
35 calculation by said impulse response processing means with the
~~missourians~~ white noise signal output from the noise generating
means to generate the fluctuating signal sequence having the
power spectrum density distribution characteristic of the
frequency fluctuations.

Claim 10 (Canceled).

11. (Previously Presented) A wander generator according to the claim 9, wherein said impulse response processing means corrects the impulse response with a correction function corresponding to an error between the power spectrum density distribution characteristic of the frequency fluctuations and the transfer function.

12. (Previously Presented) A wander generator according to claim 9, wherein said convolution processing means preferentially performs a product sum calculation for smaller absolute values of the result of the calculation for the impulse response.

13. (Previously Presented) A wander generator according to claim 9, wherein said impulse response processing means is configured to perform the calculation for the impulse response each time a white noise signal is output from the noise
5 generating means; and

wherein said convolution processing means performs the convolution processing using the result of the calculation made each time by the impulse response processing means.

14. (Previously Presented) A wander generator for generating a clock signal having wander which satisfies a desired time deviation characteristic, comprising:

center frequency information setting means for setting data
5 for determining a center frequency of the clock signal;

characteristic information setting means for setting
characteristic information of the desired time deviation
characteristic;

a fluctuating signal sequence generator unit for generating
10 a fluctuating signal sequence having a power spectrum density
distribution characteristic of frequency fluctuations
corresponding to the desired time deviation characteristic based
on the characteristic information set by said characteristic
information setting means;

15 an adder for adding the data set by said center frequency
information setting means to the fluctuating signal sequence
output from said fluctuating signal sequence generator unit;

a direct digital synthesizer for outputting a frequency
signal corresponding to an output of said adder; and

20 a clock signal output circuit for waveform shaping an output
signal of said direct digital synthesizer to output a clock
signal;

wherein said fluctuating signal sequence generator unit comprises:

25 noise generating means for generating a white noise signal based on a pseudo random signal;

 data distributing means for distributing noise signals output from said noise generating means into respective signal paths in accordance with a plurality of bands into which a
30 frequency range of the power spectrum density distribution characteristic of the frequency fluctuations is divided to output at rates corresponding to the respective bands;

 weighting means for applying weights in accordance with a magnitude of spectrum of each of the bands into which the
35 frequency band of the power spectrum density distribution characteristic is divided for the noise signals at the respective rates distributed by said data distributing means; and

 combining means for combining the noise signals at the respective rates weighted by said weighting means to generate
40 the fluctuating signal sequence having the power spectrum density distribution characteristic of the frequency fluctuations.

15. (Currently Amended) A wander generator according to claim 9, wherein said noise generating means comprises a plurality ~~(m)~~ of sets of pseudo random signal generating means

for generating pseudo random codes of M sequence at initial
5 phases different from one another, and is configured to collect
outputs at predetermined stages of said respective pseudo random
signal generating means to output ~~an m-bit~~ a parallel white noise
signal of a plurality of bits.

Claims 16-22 (Canceled).

23. (Currently Amended) A wander generator according to
claim 14, wherein said noise generating means comprises a
plurality ~~(m)~~ of sets of pseudo random signal generating means
for generating pseudo random codes of M sequence at initial
5 phases different from one another, and is configured to collect
outputs at predetermined stages of said respective pseudo random
['] signal generating means to output ~~an m-bit~~ a parallel white
noise signal of a plurality of bits.